

Management and Treatment Guidance for Fluorescent Light Bulbs (2010)

EPA

Fluorescent lights are super efficient -- up to 80% more than incandescent bulbs -- which is great for the environment, but they do have to be handled properly once they burn out according to EPA. Tossing a fluorescent bulb into the regular trash results in the release of mercury into the environment. Though these bulbs only contain a very small amount of mercury, it can add up fast.

Once it's released into the environment, mercury will repeatedly cycle through the land, water and air. When airborne, it can be deposited on soil and water bodies, settle in sediments and, ultimately, be consumed by and stored in the fat reserves of living organisms. Reducing mercury contamination should be a business goal achieved through the recycling of fluorescent bulbs.

While the disposal of certain low mercury and green tip fluorescent bulbs are not specifically covered by EPA rules, Agency regulations require that non-green tip spent mercury and other toxic metal-containing bulbs from business, industry and government be handled as hazardous waste or under the simpler universal waste rules to prevent the release of mercury and other toxins into the environment. The universal waste regulations streamline collection requirements for certain hazardous wastes in the following categories: batteries, pesticides, mercury-containing equipment (e.g., thermostats) and lamps (e.g., fluorescent bulbs). EPA recommends that even green tip spent bulbs be recycled because they do contain less but some mercury.

Under the RCRA regulations, generators must determine whether a waste exhibits a characteristic either by testing the waste or applying knowledge of the hazardous waste characteristic to the waste in lights of materials or the processes used (§262.11). It is the generator's responsibility to make a hazardous waste determination for all green tip fluorescent bulbs prior to disposing of the bulbs.

Fluorescent bulbs that are determined to be hazardous wastes may take advantage of the alternative, less stringent universal waste regulations found in Part 273. EPA developed the streamlined universal waste regulations to encourage recycling and resource conservation while ensuring adequate protection of human health and the environment (64 FR 36465, 36472; July 6, 1999). Managing non-hazardous fluorescent bulbs as universal wastes is not mandatory; however, EPA encourages recycling of all fluorescent lamps.

The hazardous waste lamp rule (64 FR 36466; July 6, 1999) is available at the following URL:

<http://www.epa.gov/epawaste/hazard/wastetypes/universal/laws.htm>